

What is claimed is:

1 1. A method of eliminating parasitic bipolar transistor
2 action in a Silicon on Insulator (SOI) Metal Oxide
3 Semiconductor (MOS) device, the method comprising:
4 Controlling the conduction of an active discharging
5 device, said active discharging device being coupled to said
6 SOI device, whereby the parasitic bipolar transistor is
7 deactivated.

1 2. The method of claim 1 further comprising:
2 providing a first signal to a first node of said SOI
3 device;
4 providing a second signal to an input of said SOI
5 device; and
6 activating the conduction of said active discharging
7 device according to the state of said first and second
8 signals.

1 3. The method of claim 2 wherein the first signal is a
2 clock signal.

1 4. The method of claim 3 wherein said first node is
2 charged high whenever said clock signal is active low.

27 node is maintained at a predetermined level.

1 8. The method according to claim 7, wherein pre-charging
2 occurs during a low state of said clock.

1 9. The method according to claim 7, wherein pre-charging
2 occurs during a high state of said clock.

1 10. The method according to claim 7, wherein during the
2 pre-charging all said inputs are set to a predetermined
3 logic state.

1 11. The method according to claim 10, wherein said logic
2 state is low.

1 12. The method according to claim 10, wherein said logic
2 state is high.

1 13. The method according to claim 7, wherein the step of
2 actively discharging said intermediate nodes prevents the
3 body voltages of said stacked SOI transistors from reaching
4 a voltage stage sufficient to activate the parasitic bipolar
5 transistors of said stacked SOI transistors.

1 14. The method according to claim 7, wherein said stacked
2 transistors are N-Field Effect Transistors (NFET) and said
3 active discharging transistors are P-Field Effect
4 Transistors (PFET).

1 15. The method according to claim 7, wherein said stacked
2 transistors are P-Field Effect Transistors (PFET) and said
3 active precharging transistors are N-Field Effect
4 Transistors (NFET).

1 16. The method according to claim 7, wherein said pre-
2 charging device comprises transistors coupled to said
3 stacked transistors.